ABSTRACT OF THE DISCLOSURE

A peritoneal dialysis solution that is biochemically balanced to correct metabolic acidosis associated with chronic renal failure in a more physiological manner. The peritoneal dialysis solution has a physiological pH, e.g., pH of 7.0 to 7.4, and contains bicarbonate at a concentration that is found in blood involved in diffusive transport of solutes with dialysis fluid.

Additionally, the solution contains carbon dioxide at a partial pressure that is similar to partial pressure of carbon dioxide found in the blood capillaries. The peritoneal dialysis solution also contains a weak acid with a pKa of less than 5.0.

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